The African Real Estate Society
And
The Commonwealth Association of Surveying and Land Economy (Africa and Europe)

Sustainable Human Settlements for Economic and Social Development Conference Livingstone Zambia 2nd to 5th May 2007

Current rural valuation practice: A survey of valuers and agribusiness managers on farm management and sustainable rural land use

Professor Chris Eves,
Lincoln University
Commerce Division
Phone: **64 3 3252811 (ext 8694)**
Fax: **64 3 3253847**
Email: **evesa@lincoln.ac.nz**

Key words

Rural land, rural economics, rural land values, farm management, land use, rural land investment, sustainable land use.

Abstract

Over the past 20 years the nature of rural valuation practice has required most rural valuers to undertake studies in both agriculture (farm management) and valuation, especially if carrying out valuation work for financial institutions. The additional farm financial and management information obtained by rural valuers exceeds that level of information required to value commercial, retail and industrial by the capitalisation of net rent/profit valuation method and is very similar to the level of information required for the valuation of commercial and retail property by the Discounted Cash Flow valuation method. On this basis the valuers specialising in rural valuation practice have the necessary skills and information to value rural properties by an income valuation method, which can focus on the long term environmental and economic sustainability of the property being valued.

This paper will review the results of an extensive survey carried out by rural property valuers in Australia, in relation to the impact of farm management on rural property values and sustainable rural land use.

A particular focus of the research relates to the increased awareness of the problems of rural land degradation in Australia and the subsequent impact such problems have on the productivity of rural land. These problems of sustainable land use have resulted in the need to develop an approach to rural valuation practice that allows the valuer to factor the past management practices on the subject rural property into the actual valuation figure. An analysis of the past farm management and the inclusion of this

data into the valuation methodology provides a much more reliable indication of farm sustainable economic value than the existing direct comparison valuation methodology.

Sustainable Rural Land Use

Rural land in Australia is the most extensive property class based on total area occupied, with the total area of land dedicated to agricultural production being 455.5 million hectares in 2000. Since 1990, the area of land in Australia used for agricultural production has ranged from a low of 440.1 million hectares to a high of 469.0 million hectares (Australian Bureau of Agricultural and Resource Economics [ABARE], 2002, 2006).

As Australia has a total land area of 768 million hectares, agricultural land use represents over 60% of the total land area in Australia. The area of land used for hobby farm operations is 11 million hectares, with residential, industrial and commercial property accounting for less than 1% of the total Australian land area (Macquarie Publications, 2000).

Rural industries in Australia are still a significant contributor to the Australian economy, in relation to total income earned, employment and export income. The current initiatives by the Department of Agriculture, Fisheries & Forestry (2001) and the various State governments to increase the amount of value adding for rural produce exports is also seeing an increase in the percentage of the balance of payments that is attributed directly and indirectly to rural production in Australia.

However, continued rural production is reliant on the land being maintained and past and potential environmental issues need to be continually addressed by the rural land owner and rural communities to ensure the continued viability of agricultural production (Department of Environment and Water resources, 2006).

Issues such as climate change and sustainable land are no longer potential future problems but are current issues facing agricultural production throughout the world, with many major agricultural producing countries now focusing considerable research efforts and funding in the areas of sustainable rural land use (MAF, 2006).

In more recent years the focus of sustainable agriculture and rural land use has been expanded from the issues of land degradation to cover the long term sustainable nature of the agricultural economy and the industries that are either directly or indirectly linked to agricultural production

According to Countryside Agency 2001, the aims of a long term economic and environmentally sustainable agriculture industry and rural property market is where:

- There are prosperous agricultural based industries producing high quality food and products
- There is a wide range of rural businesses and services both on and off the farm
- The workforce is skilled and valued
- The basic resources of soils and water are conserved effectively and degraded elements have been improved

- Native wildlife is preserved
- Historic buildings and sites are conserved and used sensitively
- Local communities are vibrant and socially inclusive
- Society recognises the need for and supports public investment in rural land management

These ideals are also affected by urban and industrial factors that are recognised as being the major causes of climate change, with both current and longer term ramifications for rural land agricultural production (MAF, 2006).

Research Methodology

A survey of NSW rural valuers in both private practice and those valuers employed by the major rural financial institutions (Agribusiness) has been carried out to:

- The level and type of economic and production data collected by rural valuers when they inspect rural property

- Details on the impact rural valuers consider that various levels of management have on rural property values

- The extent that they consider various aspects of rural property management has on rural property values

A comprehensive survey was sent to all private rural valuation offices in NSW rural locations, as well as to agribusiness managers with the major banks and financial institutions involved in rural lending.

The survey covered questions in relation to:

- The number of rural valuations carried out in the last 12 months
- Confirmation of the average number of rural valuations
- The type of rural properties valued
- The percentage break up of rural valuations carried out on a land use basis
- The number of rural valuation inspections carried out where the full economic analysis of the property was required
- Type of statistical data collected on the inspection of the rural property
- Current market perspective on premiums or discounts on well managed or poorly managed properties
- Saleability of well managed properties and any extended sale periods that could apply for poorly managed properties
- Valuers estimates of the effect of various rural property technical and financial management practices on farm profitability and land values.

Although there are approximately 100 valuers working in the rural areas of NSW, many of these individual valuers work for small to medium size private and institutional valuation firms. There were a total of 62 surveys mailed out to these firms and institutions, with 43 completed surveys, representing a response rate of

69%. In some instances the responses advised that there was not sufficient data in the office to adequately answer the final survey question (question 8). This resulted in 35 responses for the final question that dealt with the issues of the impact of farm management and management practices on rural land profitability and rural property values. However, this reduced number of fully completed survey responses still represents a 56% response for this section of the survey.

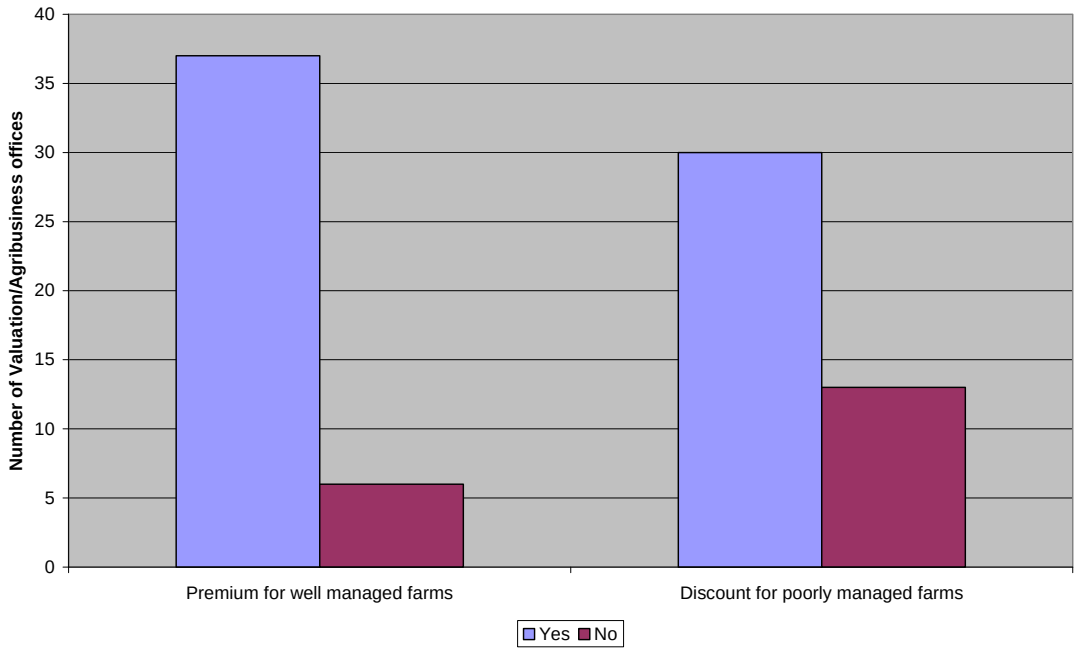
Results

1 Farm Management & Rural Property values

Over the past decade there have been a number of studies and government reports dealing with the environmental and management factors associated with rural property in Australia. This section of the survey was designed to initially determine if valuers in NSW considered that a well managed farm attracts a premium in the rural property market and the alternate argument of whether a poorly managed farm is considered to be of less value than the average rural property in the same location.

Figure 1 shows that 37 valuation/agribusiness firms considered that a well managed rural property attracts a premium in the rural property market compared to an average managed property in the same location. There were 6 firms who considered that management of the rural property did not impact on rural property values. These responses were all in rural coastal locations of NSW, where there is an alternative market for the majority of rural properties that are sold. In all the mixed farming and pastoral grazing areas valuers considered that a well managed property would have a higher value than the average and poorly managed farm.

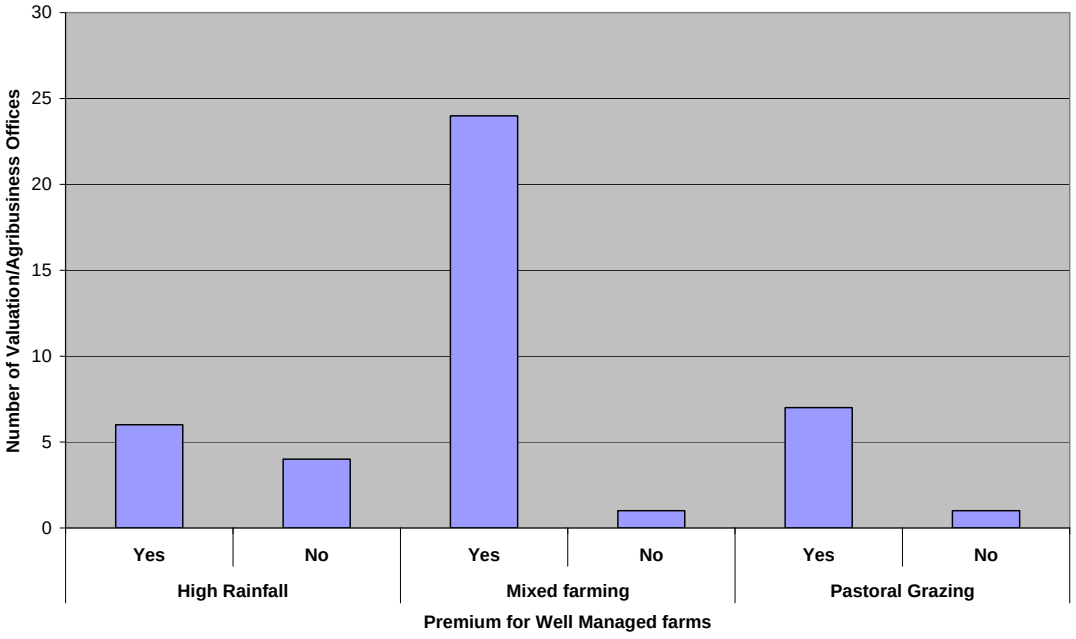
Figure 1: Premiums and Discounts; Rural Property Management Levels



Although 37 valuation firms considered that a well managed farm would be of higher value compared to an average farm in the same location, only 30 valuation firms

considered that a poorly managed farm would have a lower value compared to the average rural property in the same location. Again, the larger number of firms (13) who indicated that there would be no discount in value for poorly managed farms in their areas of operation for farms that were generally located in the coastal grazing/intensive farming areas of NSW. This suggests that in rural locations where there is an alternative use for rural land (hobby farm, rural residential or residential), the market does not consider a poorly managed rural property to be a detrimental market factor (Refer to Figure 2 and 3).

Figure 2: NSW Rural Property Premiums: Land Use



In the predominant rural areas of mixed farming and pastoral grazing 94% of valuers stated that a well managed property attracted a premium in the rural property market and 83% of valuers in the same area reported that a poorly managed rural property would suffer a discount in the market. Figures 2 and 3 also show that the pastoral areas of NSW are the rural locations where valuers consider that management of the farm has the greatest impact on the value of the rural property. Only one valuation office in this rural land use classification considered that management had no impact on the potential value of a pastoral rural property.

The survey also requested that if the valuation office considered that management would either provide a premium or discount in that particular rural property market, the extent of the premium or discount should be quantified. Although 36 valuation/Agribusiness offices stated that a well managed rural property would attract a premium in the rural property market, the range in this premium varied. Only one valuation office was not able to quantify this premium, with 80% of valuers considering that a well managed rural property would have a premium of between 1 to 20% above the average rural property in the same area, with the majority considering the premium to be in the range of 1 to 10%.

Figure 3 NSW Rural Property Discounts: Land use

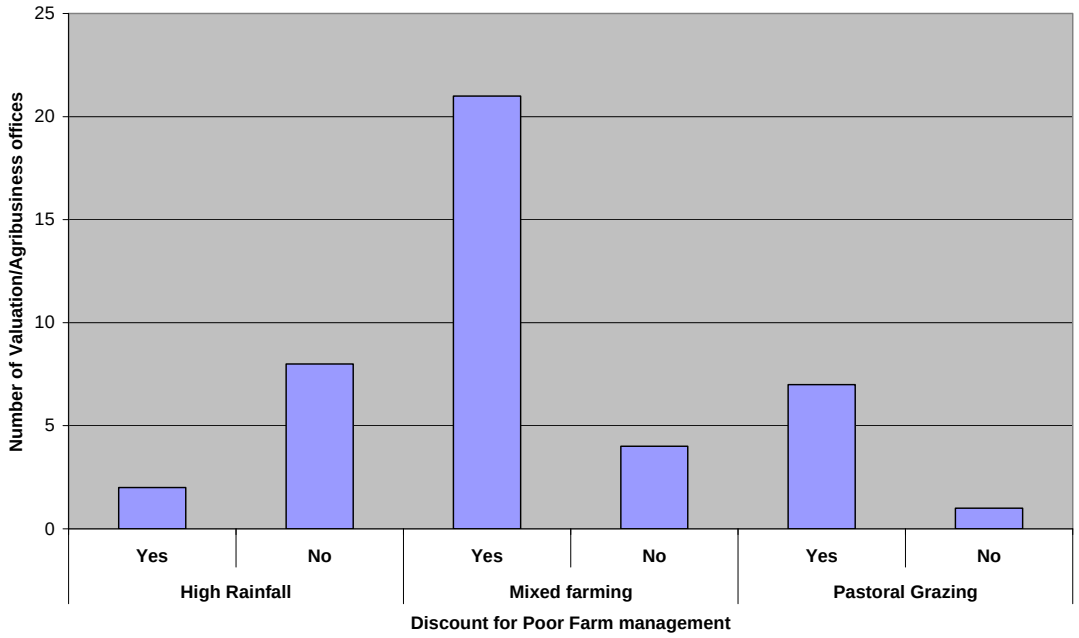


Table 1: Extent of Rural Property Premiums and Discounts: Rural Property management

	Unknown	1 to 10%	11 to 20%	21-30%
Premium	1	17	12	6
Discount	1	7	19	3

A further 16% of valuation offices considered that a well managed rural property would attract a premium of over 20% compared to the average property in the same area. The higher premiums were considered to apply in the mixed farming areas.

Although the number of valuation offices that considered that a poorly a managed rural property resulted in a discount in the market was less than the number who considered that better rural properties had a premium in the market, Table 1 shows that the majority (63%) considered that the market discount for a poorly managed rural property would be in the range of 11 to 20%. This compares to only 33% of respondents who considered that the premium for a well managed rural property would be in the range of 11-20%. Only 10% of valuation offices considered that a poorly managed rural property would have a discount of 20% greater than the average property in the same area. Again, the rural land use type that valuers considered was the most likely to suffer a discount for poor management was mixed farming and pastoral grazing.

2. Impact of farm management on farm values &profitability

The final question in the survey asked each valuation/Agribusiness office to define what increase in profitability and overall rural property value each of the offices would apply to a rural property for well above average, above average, below average

and well below average for the following rural property characteristics or rural property management characteristics:

- Sustainable Management practices
- Farm Management Ability
- Condition of Property Improvements
- Financial Management Ability
- Condition of Plant & Equipment
- Condition of Livestock
- Levels of Crop/Livestock Production
- Quality of Livestock
- Quality & Condition of Pastures
- Quality & Condition of Pastures
- Availability of Farm Statistics
- Availability of Economic Statistics

In each case, the valuation office was asked to assign a percentage difference in value for the various levels of management based on the average level of management for each characteristic being zero.

Table 2: Sustainable Management Practices

Management Status	**0% Increase**	**1-5% Increase**	**6-10% Increase**	**11-20% Increase**	**21-30% Increase**
Well Above Average	0	5	13	10	7
Above Average	3	11	19	2	0
	0% Decrease	**1-5% Decrease**	**6-10% Decrease**	**11-20% Decrease**	**21-30% Decrease**
Below Average	3	9	21	2	0
Well Below Average	0	5	13	10	7

All survey respondents agreed that a rural property that has been managed on the basis of sound long term sustainable management practices results in a premium for the well above average managed farm, with 49% of valuers stating that the well above average sustainable managed property being worth between 11% and 30% more than an average sustainable managed property in the same location. These same rural valuers also considered a well below average property (sustainable management) suffered a discount between 11 and 30%, compared to the average property in the same location.

There were three valuation firms who considered that an above average or below average sustainable managed property would have no impact on value compared to the average farm in the same location. Table 3 also shows that no valuation firm considered that the premium or discount for a rural property would be greater than 20%, if the sustainable management ability of the farmer was above or below average.

In the case of above average or below average sustainable farm management, over 50% of valuation firms considered the premium or discount would be in the range of 6 to 10%. These results show the increasing importance of environmental management on rural property values.

Table 3: Farm Management Ability

Management Status	**0% Increase**	**1-5% Increase**	**6-10% Increase**	**11-20% Increase**	**21-30% Increase**
Well Above Average	0	0	17	13	5
Above Average	4	6	23	2	0
	0% Decrease	**1-5% Decrease**	**6-10% Decrease**	**11-20% Decrease**	**21-30% Decrease**
Below Average	5	4	21	5	0
Well Below Average	0	4	8	15	8

All valuers considered that well above average farm management ability had a positive impact on the value of a rural property. 51% of those valuation/ agribusiness firms surveyed considered that the market places a minimum 11% premium on a very well managed farm compared to an average farm in the same location. However, the same level of premium did not apply if the level of farm management was only slightly above average. In this case the majority of respondents considered that the increase in value would only be between 6-10% (refer to Table 3).

Table 3 also shows that valuers consider that a well below average managed property has a significantly lower value compared to the average rural property in the same area, with 66% of valuation firms stating that well below average farm management ability can result in a property discount between 11 and 30%.

Table 4 shows the variation in value between the condition of improvements on an average rural property to rural properties where the condition of improvements are well above average, above average, below average and well below average. This table shows that valuers consider the overall condition of improvements on the rural property as being an indicator of the condition and value of the total rural property.

However, even in cases where the improvements on a rural property are considered to be well above average the majority of valuers (63%) consider the potential increase in overall property values is only in the range of 1 to 10%.

Although better than average condition of improvements only add slightly to overall farm values, Table 4 shows that valuers consider the condition of improvements as a better indicator of poor farm management and subsequent impact on value, with 83% of valuers indicating that well below average condition of improvements would reflect a decreases rural property value between 6 and 30%.

Table 4: Condition of Property Improvements

Management Status	0% Increase	1-5% Increase	6-10% Increase	11-20% Increase	21-30% Increase
Well Above Average	0	1	21	10	3
Above Average	6	8	18	3	0
	0% Decrease	**1-5% Decrease**	**6-10% Decrease**	**11-20% Decrease**	**21-30% Decrease**
Below Average	8	9	17	2	0
Well Below Average	2	4	14	10	5

Unlike, the previous farm management and value indicators, the financial management ability appears to have a lower impact on the overall value of the rural property. Table 5 shows that 63% of survey respondents considered that well above average and above average financial management ability would only reflect a 0 to 5% increase in rural property value, with a similar percentage of valuers considering below average farmer financial management resulting in a reduced rural property range of 0-5%.

Table5: Financial Management Ability

Management Status	0% Increase	1-5% Increase	6-10% Increase	11-20% Increase	21-30% Increase
Well Above Average	9	10	9	5	2
Above Average	15	7	10	3	0
	0% Decrease	**1-5% Decrease**	**6-10% Decrease**	**11-20% Decrease**	**21-30% Decrease**
Below Average	15	6	9	4	1
Well Below Average	7	1	20	2	5

However, when well below average farm financial management is considered as an indicator of rural property value 77% of respondents considered that this lower level of management would result in a decrease in rural property values between 6 and 30%.

Table 6 represents the various survey opinions in relation to the link between rural property values and the condition of farm plant and equipment. These results show that the majority of valuers do not consider that a farm with above average or below average farm equipment and plant reflects an increase or decrease in rural property values, even in mixed farming areas where the value of farm plant is significant.

Table6: Condition of Plant & Equipment

Management Status	0% Increase	1-5% Increase	6-10% Increase	11-20% Increase	21-30% Increase
Well Above Average	11	15	6	2	1
Above Average	18	8	6	3	0
	0% Decrease	**1-5% Decrease**	**6-10% Decrease**	**11-20% Decrease**	**21-30% Decrease**
Below Average	19	6	8	2	0
Well Below Average	12	10	9	2	2

Tables 7 and 8 also show that the actual quality and condition of livestock on a rural property does not have as great an impact on farm values as do factors such as farm management ability and environmental management ability. Only 15 valuation/agribusiness offices considered that well above average and above average condition and quality of livestock on a farm indicated a potential increase in value greater than 5%.

Table 7: Condition of Livestock

Management Status	0% Increase	1-5% Increase	6-10% Increase	11-20% Increase	21-30% Increase
Well Above Average	10	10	8	3	4
Above Average	15	8	9	4	0
	0% Decrease	**1-5% Decrease**	**6-10% Decrease**	**11-20% Decrease**	**21-30% Decrease**
Below Average	16	10	8	1	0
Well Below Average	10	1	19	4	1

However, valuers do consider that well below average condition of livestock is a good indicator of a reduced value of the rural property, with 69% considering a farm with well below average livestock having an overall reduction in value of 6 to 30%.

This reflects the opinion that the actual condition of livestock can be linked to seasonal conditions rather than the quality or management of the rural property.

Table 8: Quality of Livestock

Management Status	0% Increase	1-5% Increase	6-10% Increase	11-20% Increase	21-30% Increase
Well Above Average	14	10	4	3	4
Above Average	19	8	4	4	0
	0% Decrease	**1-5% Decrease**	**6-10% Decrease**	**11-20% Decrease**	**21-30% Decrease**
Below Average	21	5	8	1	0
Well Below Average	16	9	4	3	3

Table 9: Levels of Crop/Livestock Production

Management Status	0% Increase	1-5% Increase	6-10% Increase	11-20% Increase	21-30% Increase
Well Above Average	5	3	17	6	4
Above Average	10	7	16	2	0
	0% Decrease	**1-5% Decrease**	**6-10% Decrease**	**11-20% Decrease**	**21-30% Decrease**
Below Average	10	3	18	3	1
Well Below Average	5	2	14	9	5

In relation to well above and well below the average rural property in any particular location, the majority of valuers responding to the survey stated that the actual level of crop or livestock production would for these levels of management increase or decrease the value of that rural property by 6 to 10%, with 14 valuers stating that poor levels of crop and livestock production would result in a decrease in property values of 11-30%. However, most valuers indicated that below average or above average levels of production would not result in the same increases or decreases in property values. 10 valuers indicated that there would be no difference in values, while approximately 50% of respondents stating the difference in value would be in the range of 6-10% (refer to Table 9).

According to Table 10, the survey shows that the quality and condition of farm pastures is reflected in the overall value of the rural property. Respondents (94%) indicated that a property with well above average quality and condition of pastures would have a value at least 6% greater than a similar property in the same location with average quality and condition of pastures. A slightly lower percentage of respondents (89%) stated that well below average quality and condition of pastures would suggest a decrease in value of at least 6%.

Table 10: Quality & Condition of Pastures

Management Status	0% Increase	1-5% Increase	6-10% Increase	11-20% Increase	21-30% Increase
Well Above Average	1	1	23	5	5
Above Average	8	8	17	1	1
	0% Decrease	**1-5% Decrease**	**6-10% Decrease**	**11-20% Decrease**	**21-30% Decrease**
Below Average	8	6	19	2	0
Well Below Average	2	2	19	10	2

In relation to above or below average quality and condition of pastures, valuers in NSW consider that there is a less substantial increase or decrease in value for a property that has above average or below average pastures. The survey statistics show that 94% of respondents consider above average pastures indicate an increase in value of less than 10%, with a similar decrease in value for rural properties with below average pastures.

Table 11: Quality & Condition of Crops

Management Status	0% Increase	1-5% Increase	6-10% Increase	11-20% Increase	21-30% Increase
Well Above Average	5	5	18	7	0
Above Average	11	7	17	0	0
	0% Decrease	**1-5% Decrease**	**6-10% Decrease**	**11-20% Decrease**	**21-30% Decrease**
Below Average	13	5	13	2	2
Well Below Average	4	6	12	11	2

It is interesting to note the difference in responses for the question relating to the quality and condition of crops. In the case of pastures, valuers stated that well above or well below average pastures would result in a significant change in value compared to the rural property with average pastures, this is not reflected in the case of crops. Only two valuation firms considered that well below average crops would suggest a decrease in value between 20 to 30% and no valuation/agribusiness firms considered that well above average crops would indicate a value increase between 20 and 30%. Approximately 33% of those surveyed considered that a farm with above average crops or below average crops would have any difference in value compared to a rural property with average crops.

Table 12: Availability of Farm Statistics

Management Status	0% Increase	1-5% Increase	6-10% Increase	11-20% Increase	21-30% Increase
Well Above Average	8	6	17	1	3
Above Average	17	8	8	1	1
	0% Decrease	**1-5% Decrease**	**6-10% Decrease**	**11-20% Decrease**	**21-30% Decrease**
Below Average	14	6	11	4	0
Well Below Average	6	4	16	5	4

Tables 12 and 13 show the increase or decrease in value that valuers attributed to the availability of farm production statistic and farm economic statistics compared to the level of farm production and economic data available from the average farmer for any given rural land use. These tables show that the majority of respondents (over 80%) considered that the above average ability to supply farm production and economic statistics would only result in an increase in value from 0% to 5%. A similar number of valuers considered that the availability of less then average farm statistics would only result in a decrease in value of 0 to 5%.

Table 13: Availability of Economic Statistics

Management Status	0% Increase	1-5% Increase	6-10% Increase	11-20% Increase	21-30% Increase
Well Above Average	7	13	10	3	2
Above Average	21	9	5	0	0
	0% Decrease	**1-5% Decrease**	**6-10% Decrease**	**11-20% Decrease**	**21-30% Decrease**
Below Average	17	6	7	4	1
Well Below Average	10	7	10	3	5

However, in cases where the farmer can provide well above average statistics on farm production and economics the en these particular farms generally have a value6 to 20% higher than the average farmer. Although this farm management factor does not relate directly to overall technical or financial management ability, the response to this survey question does suggest that the level of records kept by the individual farmer can reflect in the overall value of the property management.

The following two sections of the report will discuss these individual results on a collective basis and then provide an average across the five levels of farm management and production levels.

Management Summary

The increase or decrease in rural property value, in comparison to the value of the average property in each valuer's areas of operation, is shown in Tables 14 to 17.

Each table lists the various management and rural property value characteristics, as well as a range of percentage value increases or decreases that each valuation/agribusiness office could apply for rural properties that were either well above or above the average property in the areas they worked or for properties that were well below or below average for the rural properties in their areas.

Better than average management

Table 14 is a summary of the percentage difference between the average rural property and the rural property that is well above average in the same land use and location.

Table 14: Percentage Increases in Rural Property Value for Well Above Average Management (Base Average Management)

Property/Management Characteristics	0% Increase	1-5% Increase	6-10% Increase	11-20% Increase	> 20% Increase
Sustainable Management practices	0	5	13	10	7
Farm Management Ability	0	0	17	13	5
Condition of Property Improvements	0	1	21	10	3
Financial Management Ability	9	10	9	5	2
Condition of Plant & Equipment	11	15	6	2	1
Condition of Livestock	10	10	8	3	4
Levels of Crop/Livestock Production	5	3	17	6	4
Quality of Livestock	14	10	4	3	4
Quality & Condition of Pastures	1	1	23	5	5
Quality & Condition of Pastures	5	5	18	7	0
Availability of Farm Statistics	8	6	17	1	3
Availability of Economic Statistics	7	13	10	3	2

For each characteristic the valuation/agribusiness office provided a range of increased values/profitability over and above the average rural property. A zero value could be given if the office perceived that a well above average classification did not result in any increase in value/profitability over and above the average rural property level of management.

From Table 14, it can be seen that valuers considered the most important factors determining any increased value in rural property for well above average management were sustainable farming practices, farm management ability, condition of farm improvements and quality and condition of pastures. For all these characteristics virtually all valuers considered that the well above average farmers' property would have a value in excess of 6% higher than the average farmer in the same location, with the average percentage in value for these specific characteristics being over 15% higher than the average rural property.

Table 14 also shows that valuers considered that the management characteristics of condition of plant and equipment, condition of livestock and quality of livestock having limited effect on determining the value of a rural property. With these characteristics up to 14 valuation offices considered that a rural property where these characteristics were well above average would not actually result in any increased level of value compared to the rural property were these characteristics were at the average level of management.

On average most valuers considered that a well above average rural property would have a value approximately 6-10% higher than the average property in the same area.

Table 15 is a summary of the percentage difference between the average rural property and the rural property that is above average in the same land use and location. For each characteristic the valuation/agribusiness office provided a range of increased values/profitability over and above the average rural property. A zero value could be given if the office perceived that a well above average classification did not result in any increase in value/profitability over and above the average rural property level of management.

From Table 15, it can be seen that valuers considered the most important factors determining any increased value in rural property for well above average management were sustainable farming practices, farm management ability, condition of farm improvements and quality and condition of pastures. However, the increase in value is considerably less than that stated for the well above average property. In the case of the above average farmer up to eight valuers stated that there is no difference between the average rural property value and the above average rural property for these management characteristics. Again, for all these characteristics virtually all valuers considered that the well above average farmers' property would have a value in excess of 6% higher than the average farmer in the same location, with the average percentage in value for these specific characteristics being approximately8% higher than the average rural property.

Table 15 also shows that valuers considered that the management characteristics of condition of plant and equipment, condition of livestock and quality of livestock

having limited effect on determining the value of a rural property. With these characteristics up to 19 valuation offices considered that a rural property where these characteristics were above average would not actually result in any increased level of value compared to the rural property were these characteristics were at the average level of management.

Table 15: Percentage Increase in Rural Property Value for Above Average Management (Base Average Management)

Property/Management Characteristics	0% Increase	1-5% Increase	6-10% Increase	11-20% Increase	> 20% Increase
Sustainable Management practices	3	11	19	2	0
Farm Management Ability	4	6	23	2	0
Condition of Property Improvements	6	8	18	3	0
Financial Management Ability	15	7	10	3	0
Condition of Plant & Equipment	18	8	6	3	0
Condition of Livestock	15	8	9	4	0
Levels of Crop/Livestock Production	10	7	16	2	0
Quality of Livestock	19	8	4	4	0
Quality & Condition of Pastures	8	8	17	1	1
Quality & Condition of Pastures	11	7	17	0	0
Availability of Farm Statistics	17	8	8	1	1
Availability of Economic Statistics	21	9	5	0	0

In the case of the above average rural property there were only two occasions where a single valuer attributed a higher value of over 20% for the above average rural property to the average rural property and that was for quality and condition of pastures and availability of farm statistics.

Less than average management

Table 16 shows that valuers consider that the below average rural property, compared to the average rural property in the same location, does not always result in a decrease in value. In all but four characteristics (sustainable management, farm management ability, condition of improvements and quality of pastures) more than 10 valuation offices considered that there was no decrease in value. Only in the characteristics of financial management ability, levels of crop and livestock production, quality of pastures and availability of economic statistics did any valuers consider the decrease

in value would be over 20%, but the numbers of valuers with these opinions were low (1, 1, 2 and 1 respectively)

Table 16: Percentage Decrease in Rural Property Value for Below Average Management (Base Average Management)

Property/Management Characteristics	0% Decrease	1-5% Decrease	6-10% Decrease	11-20% Decrease	> 20% Decrease
Sustainable Management practices	3	9	21	2	0
Farm Management Ability	5	4	21	5	0
Condition of Property Improvements	8	9	17	2	0
Financial Management Ability	15	6	9	4	1
Condition of Plant & Equipment	19	6	8	2	0
Condition of Livestock	16	10	8	1	0
Levels of Crop/Livestock Production	10	3	18	3	1
Quality of Livestock	21	5	8	1	0
Quality & Condition of Pastures	8	6	19	2	0
Quality & Condition of Pastures	13	5	13	2	2
Availability of Farm Statistics	14	6	11	4	0
Availability of Economic Statistics	17	6	7	4	1

In the areas of environment management, farm management ability, condition of pastures and condition of improvements the majority of valuers considered that there would be a 6-10% decrease in value for a below average rural property compared to the average managed property (range 7.5% to 8.5%).

Well below average management

As was the case with the well all the levels of management discussed above, valuers considered that even with well below average management of the rural property in the areas of condition of livestock and condition of livestock there was a limited reduction in value compared to the average property. However, Table 17 shows that in all other characteristics of farm management valuers consider that there is a significant discount in values between the average rural property and the well below average rural property. This is especially the case with environment management, farm management ability, and condition of improvements, where more than 50% of respondents stated that the decrease in value would be in excess of 10%. Table 17 shows that more valuers responding to the survey considered that well below average management would result in decreases of over 20% in value for each of the

characteristics than those who considered that the well above average farm would be over 20% higher than the average rural property.

Table 17: Percentage Decrease in Rural Property Value for Well Below Average Management (Base Average Management)

Property/Management Characteristics	0% Decrease	1-5% Decrease	6-10% Decrease	11-20% Decrease	> 20% Decrease
Sustainable Management practices	0	5	13	10	7
Farm Management Ability	0	4	8	15	8
Condition of Property Improvements	2	4	14	10	5
Financial Management Ability	7	1	20	2	5
Condition of Plant & Equipment	12	10	9	2	2
Condition of Livestock	10	1	19	4	1
Levels of Crop/Livestock Production	5	2	14	9	5
Quality of Livestock	16	9	4	3	3
Quality & Condition of Pastures	2	2	19	10	2
Quality & Condition of Pastures	4	6	12	11	2
Availability of Farm Statistics	6	4	16	5	4
Availability of Economic Statistics	10	7	10	3	5

The following two tables are a summary of the survey results, which have been analysed on a scale of 0 to 5 to determine an average percentage difference for each of the rural property management and production indicators discussed in the survey. The rating scales for the four levels of management (well above average, above average, below average and well below average) are as follows:

0%:	increase or decrease above or below average:	0
1-5%:	increase or decrease above or below average:	1
6-10%:	increase or decrease above or below average:	2
11-20%:	increase or decrease above or below average:	3
21-30%:	increase or decrease above or below average:	4

The average score for each survey question has then been used to determine the actual percentage difference for each indicator, at each level of management. These are shown in Tables 18 and 19.

Table 18: Rural Property Financial and Economic Farm Management Attributes and Indicators

Property Characteristics	Well Above Average Management (%)	Above Average Management (%)	Below Average Management (%)	Well Below Average Management (%)
Sustainable Management practices	15.0	8.0	8.0	15.0
Farm Management Ability	17.0	8.5	8.5	18.0
Condition of Property Improvements	14.0	7.5	7.0	13.0
Financial Management Ability	7.5	5.0	5.5	9.5
Availability of Farm Statistics	8.0	4.5	5.5	9.5
Availability of Economic Statistics	7.0	2.5	5.0	8.0
Average (%)	**11.4**	**6.0**	**6.6**	**12.2**

Table 18 summarises the survey response questions relating to the financial and economic factors that determine farm profitability and differentiate the various levels of farm management. This table shows that based on financial and economic farm management the well above average managed rural property would be valued at an average of 11.4% higher than the average farm in the same rural location. As the level of management ability falls to an above average level the difference between the value of the above average rural property and the average rural property falls to 6.0% The premium for well managed rural properties is not quite as high as the discount that valuers apply to the below average or well below average properties. This study shows that based on their financial and economic indicators of a rural property, valuers and agribusiness managers consider the below average farm is worth 6.6% less than the average rural property, with the well below average rural property being 12.2% less than the average rural property in the same location.

Table 19 represents the differences in value above or below the average farm based on the four alternate levels of management ability for the physical and technical aspects of rural property management. This table shows that these rural property factors do not have the same impact on rural property values as the financial and economic indicators of rural property management. For the well above average rural properties there is an average increase in value over the average rural property of 7.9%. The increase in value for the above average rural property is 5.2%. In relation to below average management the discount for below average or well below average management rural property to the average rural property is 5.0% and 8.25% respectively.

Table 19: Rural Property Technical and Physical Farm Management Attributes and Indicators

Property Characteristics	Well Above Average Management (%)	Above Average Management (%)	Below Average Management (%)	Well Below Average Management (%)
Condition of Plant & Equipment	5.5	4.0	4.0	6.0
Condition of Livestock	7.5	5.5	4.0	8.0
Levels of Crop & Livestock Production	10.0	6.5	7.5	12.0
Quality of Livestock	6.0	4.0	3.5	5.5
Quality & Condition of Pastures	13.0	7.0	7.0	12.0
Condition of Plant & Equipment	5.5	4.0	4.0	6.0
Average	**7.9**	**5.2**	**5.0**	**8.25**

When the economic and physical farm performance indicators are combined to provide an overall average for the full survey questions, the difference in value for well managed rural properties compared to poorly managed rural properties becomes very apparent.

Table 20 provides the final summary of the survey questions relating to the differences in value for rural property based on the various levels of farm management.

Table 20: Rural Property Management Level Summary

Management Level	Premium/Discount (%)	Volatility (%)
Well Above Average	9.7	4.0
Above Average	5.6	1.9
Below Average	5.8	1.8
Well Below Average	10.2	3.9

The survey respondents have provided a comprehensive analysis of the impact of all levels of rural property management on the difference in price for farms in the high rainfall costal and tablelands, mixed farming and pastoral regions of NSW.

Based on these average results valuers and agribusiness consultants consider that a very well managed rural property would have a 9.7% higher value than the average property in the same location and land use. As the level of management declines to above average only, this price (value) difference between the average farm and the above average farm decreases to 5.6%.

According to the survey findings, respondents consider that the average difference in value (rural land price) is more pronounced in relation to below average and well below average farm management. The survey findings indicate that a below average managed rural property will be on average 5.8% less than the average managed farm, 11.4% less than the above averaged managed rural property and 15.5% less than the above average managed rural property.

Table 21: Rural Property Values: Management Variations

Average Farm Value ($total)	Well Below Average Management ($total)	Below Average Management ($total)	Above Average Management ($total)	Well Above Average Management ($total)
500,000	449,000	471,000	528,000	548,500
600,000	538,800	565,200	633,600	658,200
700,000	628,600	659,400	739,200	767,900
800,000	718,400	753,600	844,800	877,600
900,000	808,200	847,800	950,400	987,300
1,000,000	898,000	942,000	1,056,000	1,097,000
1,250,000	1,122,500	1,177,500	1,320,000	1,371,250
1,500,000	1,347,000	1,413,000	1,584,000	1,645,500
2,000,000	1,796,000	1,884,000	2,112,000	2,194,000

These differences in rural property values and the level of farm management is even greater when the value of well below average rural property management is compared to all other farm management classifications. The analysis of the survey show that a well below average managed rural property is considered by valuers and agribusiness managers to be 10.2% less than a similar type farm where management is at an average level. When the well below average managed farm is compared to both an above average and a well above average farm of similar land use the difference in values are 15.8% and 19.9% respectively.

Table 21 shows that based on these results if an average rural property (size, level of development and land use) in any given location has a specific value of say $1,250,000, then the value of an adjoining or nearby rural property (similar size, level of development and land use) should vary to this figure to reflect the management ability of the rural property operator. In the given example a similar sized and land use well above average farm in this location should be valued at a figure of $1,371,000, whereas the well below average farm of similar size and land use would only be valued at $1,122,000.

All rural valuers are aware of the role that farm management plays in the successful operation of a rural property and this level of management is an important factor that is considered when a rural property is valued. However, the survey also reveals that a

full economic analysis of the business component of a rural property is carried out only in a limited number of cases, with the majority of valuers stating that such depth of analysis is only required in less than 25% of rural valuations carried out. It will be difficult for valuers who are not obtaining full farm economic data to assess the financial management and net profit of any rural property they value for the purpose of adopting an income valuation method.

However, the survey also shows that in cases, where a full economic analysis of the farm is required the majority of rural valuers actually obtain a significant amount of economic and financial data that could be used to determine a valuation based on an income valuation method. Most rural valuers, when requested, obtain full production data, financial information to determine both farm cash flows and average annual net profits.

Conclusions

Valuers in rural locations undertake a varied range of property valuation work, with the majority of valuers in rural locations doing less then 25 rural valuations a year. Valuers in these rural areas carry out more urban valuation work than rural valuation work.

The majority of rural property valuation instructions only request that a current market value of the farm be assessed. Most valuers reported that a full economic analysis of the rural property is only requested in 25% of valuation instructions.

Even in cases where a full economic analysis of the rural property is not requested, rural property valuers will obtain data to assess the management ability of the farm operator and data to determine the environmental aspects of the farm under current and past management

All valuers reported that the environmental condition of the rural property has a significant impact on the current and future value of that rural property. The majority of rural valuers stated that poor environmental management would result in a decrease in value, with good environmental farm management resulting in an increase in property values.

Although not all rural valuation instructions required a full farm economic analysis, the majority of rural valuers obtain sufficient data to assess the technical and financial management ability of the farm operator. All valuers who are instructed to comment on the economic viability of a rural property obtain all the data to analyse the operational and financial performance of the farm. In such cases, the data collected is sufficient to determine a return on real estate assets as well as a return on total farm assets.

All valuers surveyed who do collect farm management and operations data stated that an above average and a well above averaged farm would have a higher value in the particular rural market when compared the average managed property in the same location. The survey also found that a poorly managed farm has a greater detrimental value compared to the average property in the same location.

The majority of respondents also stated that farm financial management performance also impacts on the value of a rural property, with a better managed farm having a greater value to both the average rural property and the various below average managed rural properties.

The surveys and interviews have suggested that due to the low number of rural properties that are valued annually on the basis of obtaining all financial and economic performance data, it would not be feasible for the majority of rural valuers to adopt an income valuation method for valuing rural property, as either a primary or secondary valuation method.

However, the survey and interviews has shown that the small number of valuers who do collect this required information on the rural property valuation inspection are either currently using an income valuation method as a secondary (check) valuation method, or would be able to do if requested by the instructing client.

Survey and interview results have also shown that any rural property valuation based on an income valuation method, where the farm net profit is based on the management ability of the operator (technical, financial and environmental) would result in a variation in value of up to 20% when a well managed farm is compared to a well below managed farm in the same location developed for the same rural land use.

References

Australian Bureau of Agricultural Resource Economics. (2002), Australian Farm Survey Report. Australian Government Publishing Service, Canberra.

Australian Bureau of Agricultural Resource Economics. (2006), Australian Farm Survey Report. Australian Government Publishing Service, Canberra.

Department of Environment and Water resources, (2006) Sustainable land management. http://www.environment.gov.au/land/management/index.html

Kelly, J. D. (1958), The effect of seasonal conditions and falling commodity prices on rural land values. The Valuer 15(4): 212-219.

Macquarie Publications. (2000), Macquarie World Atlas. Macquarie Publishing Pty Ltd Sydney, Australia.

Ministry of Agriculture and Fisheries [MAF]. (2006). Sustainable land management and climate change. MAF Policy

Ministry of Agriculture and Fisheries (2000) Constraints to farm level adoption of new sustainable technologies and management practices in New Zealand pastoral agriculture. www.maf.govt.nz/mafnet/rural-nz/sustainable-resources-use/landmanagement

The Counrtyside Agency (2001) A strategy for sustainable land management in England. Countryside Agency publishing. West yorkshire